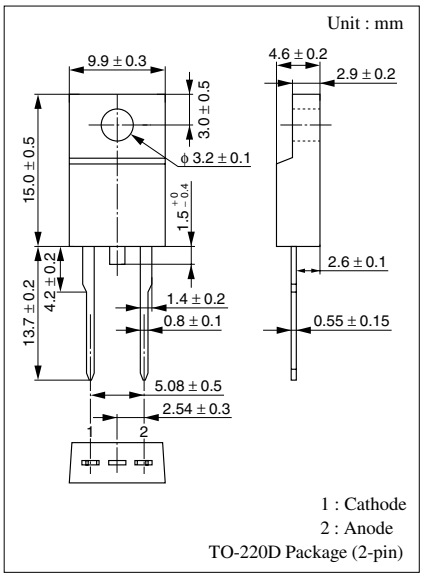
MA2D601

Silicon planar type

For high-frequency rectification
For Snubber circuit of power supplies
For secondary side rectification for a power supply



■ Features

- High reverse voltage V_R > 600 V
- Short reverse recovery time t_{rr} < 50nsec
- TO-220D (Full-pack package) with high dielectric breakdown voltage > 5.0 kV

■ Absolute Maximum Ratings $T_a = 25°C$

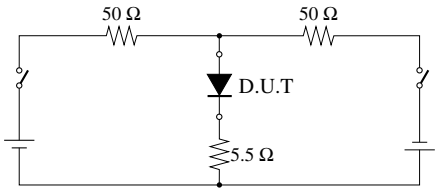
Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	600	V
Non-repetitive peak reverse surge voltage	V_{RSM}	600	V
Average forward current	$I_{F(AV)}$	5.0	A
Non-repetitive peak forward surge current*	I_{FSM}	50	A
Junction temperature	T_j	−40 to +150	°C
Storage temperature	T_{stg}	−40 to +150	°C

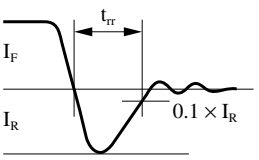
Note) * : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

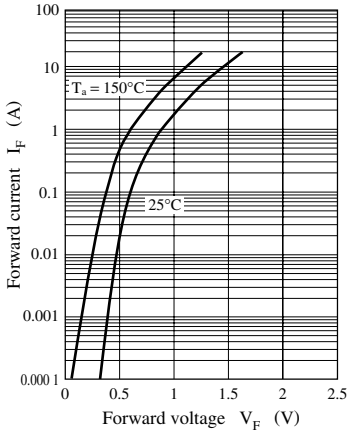
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Repetitive peak reverse current	I_{RRM1}	V_{RRM} = 600 V, T_C = 25°C			100	μA
	I_{RRM2}	V_{RRM} = 600 V, T_j = 150°C			500	μA
Forward voltage (DC)	V_F	I_F = 5.0 A, T_C = 25°C			1.5	V
Reverse recovery time*	t_{rr}	I_F = 1 A, I_R = 1 A			50	ns
Thermal resistance	$R_{th(j-c)}$				3.0	°C/W
	$R_{th(j-a)}$				63	°C/W

Note) 1. Rated input/output frequency: 10 MHz
2. Tightening torque-max. 8 kg × cm
3. * : t_{rr} measuring circuit

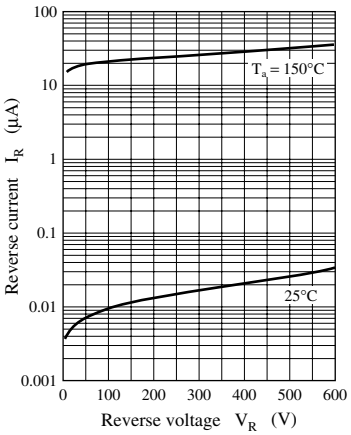




I_F — V_F


100
10
1
0.1
0.01
0.001
0.000 1
Forward current I_F (A)
T_a = 150°C
25°C
0
0.5
1
1.5
2
2.5
Forward voltage V_F (V)

I_R — V_R


100
10
1
0.1
0.01
0.001
Reverse current I_R (μA)
T_a = 150°C
25°C
0
100
200
300
400
500
600
Reverse voltage V_R (V)